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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/572,596	11/14/2008	Golok Bihari Nando	28776-4US59PCT	2910
22850	7590	01/04/2012		
OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, L.L.P. 1940 DUKE STREET ALEXANDRIA, VA 22314				
EXAMINER RABAGO, ROBERTO				
ART UNIT		PAPER NUMBER		
1762				
NOTIFICATION DATE		DELIVERY MODE		
01/04/2012		ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary**Application No.**

10/572,596

Applicant(s)

NANDO ET AL.

Examiner

Roberto Rabago

Art Unit

1762

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 August 2011.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on ____; the restriction requirement and election have been incorporated into this action.
- 4) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 5) ☒ Claim(s) 1-17 is/are pending in the application.
- 5a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 6) ☐ Claim(s) ____ is/are allowed.
- 7) ☒ Claim(s) 1-3, 5-13 and 15-17 is/are rejected.
- 8) ☒ Claim(s) 4 and 14 is/are objected to.
- 9) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 10) ☐ The specification is objected to by the Examiner.
- 11) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 12) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB-08)
Paper No(s)/Mail Date ____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date ____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____

DETAILED ACTION

1. Prior rejection under 35 USC 112, second paragraph, as set forth in item 4(a) of the Office action mailed 4/5/2011 is withdrawn in view of applicants' argument.

Applicants state that "n" refers to the number of repeat units in a polymer, which may be high or low, and which is related to molecular weight and viscosity. In combination with the fact that the claimed product is a rubber grafted with the specific pendant structures shown in claims 1 and 7, and in view of the required Mooney viscosity (which is related to polymer size and molecular weight), the claimed scope is sufficiently clear.

Remaining prior rejections under 35 USC 112, second paragraph, are withdrawn in view of amendment (except as regards claim 11 as set forth in item 4(i) of the Office action mailed 4/5/2011).

Rejection over GB 1523076 is withdrawn partially in view of applicants' response and amendment. Applicants argue that the reference does not disclose chemical grafting of the cardanol. This is not persuasive because cardanol is present in the cited examples under grafting conditions, and therefore at least a non-zero degree of grafting would be expected. However, the reference does not disclose that cardanol would be grafted at the positions shown in claims 1 and 7 wherein the grafted rubber has the required viscosity.

Claim Rejections - 35 USC § 112

2. Claims 5, 10 and 11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

(a) In claim 5, it is not understood how a phosphorylated or chlorinated derivative of cardanol is a synthetic rubber.

(b) In each of claims 10 and 11, last line, the intended meaning of "the desired" product is indefinite.

(c) In claim 11, the claim is indefinite because the limitation "its derivative" is beyond the scope of the parent claim, which specifies only cardanol or phosphorylated cardanol.

3. Claims 1-3, 5-13 and 15-17 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for a grafted rubber having the first structure for R1 as recited in claims 1 and 7 (and all claims dependent thereon), does not reasonably provide enablement for the second and third structures for R1. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to obtain the invention commensurate in scope with these claims. Specifically, structures comprising a pendant phenyl or CN group and a repeating unit comprising a linear six-carbon saturated chain do not appear to be possible in any of the modified rubbers described in the specification. None of the specifically disclosed rubbers would have the required saturated chain segments, and the specification does not appear to disclose how such structures would be made.

4. Regarding "plasticity" as recited in claim 2, the specification states at pages 19-20 that this property is measured using a Wallace Rapid Plastimeter. Examination has been based on the premise that this property is determined using a method as described under "Principle" and "Test Procedure" in the product literature for Wallace Instruments Rapid Plastimeter (see page 1 of <http://www.wallaceinstruments.co.uk/products/plasticity/p14.htm>). Should applicants disagree with this interpretation, they should provide alternative method conditions for determining plasticity, and identify where support may be found.

5. Claims 4 and 14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Roberto Rabago whose telephone number is (571)272-1109. The examiner can normally be reached on Monday - Friday from 8:00 - 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on (571) 272-1114. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Roberto Rabago/
Primary Examiner
Art Unit 1762

December 20, 2011